

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 10064696
PUBLICATION DATE : 06-03-98

APPLICATION DATE : 23-08-96
APPLICATION NUMBER : 08241313

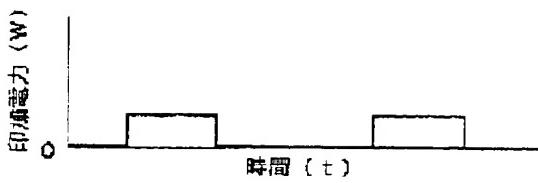
APPLICANT : TOKYO ELECTRON LTD;

INVENTOR : KOSHIMIZU CHISHIO;

INT.CL. : H05H 1/46 C23F 4/00 H01L 21/205
H01L 21/3065

TITLE : PLASMA PROCESSING DEVICE

(a)



(b)



ABSTRACT : PROBLEM TO BE SOLVED: To optimize the plasma processing to be made with a pulse plasma.

SOLUTION: The resonant frequency is shifted higher than steady condition according to the on-timing of high frequency pulses for plasma excitation, and thereby the resonating condition is made easier to be coordinated, and the igniting performance of each pulse plasma can be improved. The frequency or output of high frequency pulses for bias is controlled, and the VPP (voltage max. and min. values of RF power to be applied on a wafer as object to be processed) or VDC (the voltage means value of RF power applied on the wafer) on the processing surface of an object to be processed is kept constant, and thereby steep change of the ion energy is avoided and damage of the object is reduced, and it is possible to conduct uniform plasma processing.

COPYRIGHT: (C)1998,JPO